



Sam Jones – Abiaki Prairie
C-139 Annex Restoration
August 25, 2017



CONSTRUCTION: PHASE 1

Phase 1: Site Leveling Substantially Complete





Phase 1: Hydrologic Restoration

Phase 1 Original Site Conditions: Orange Groves



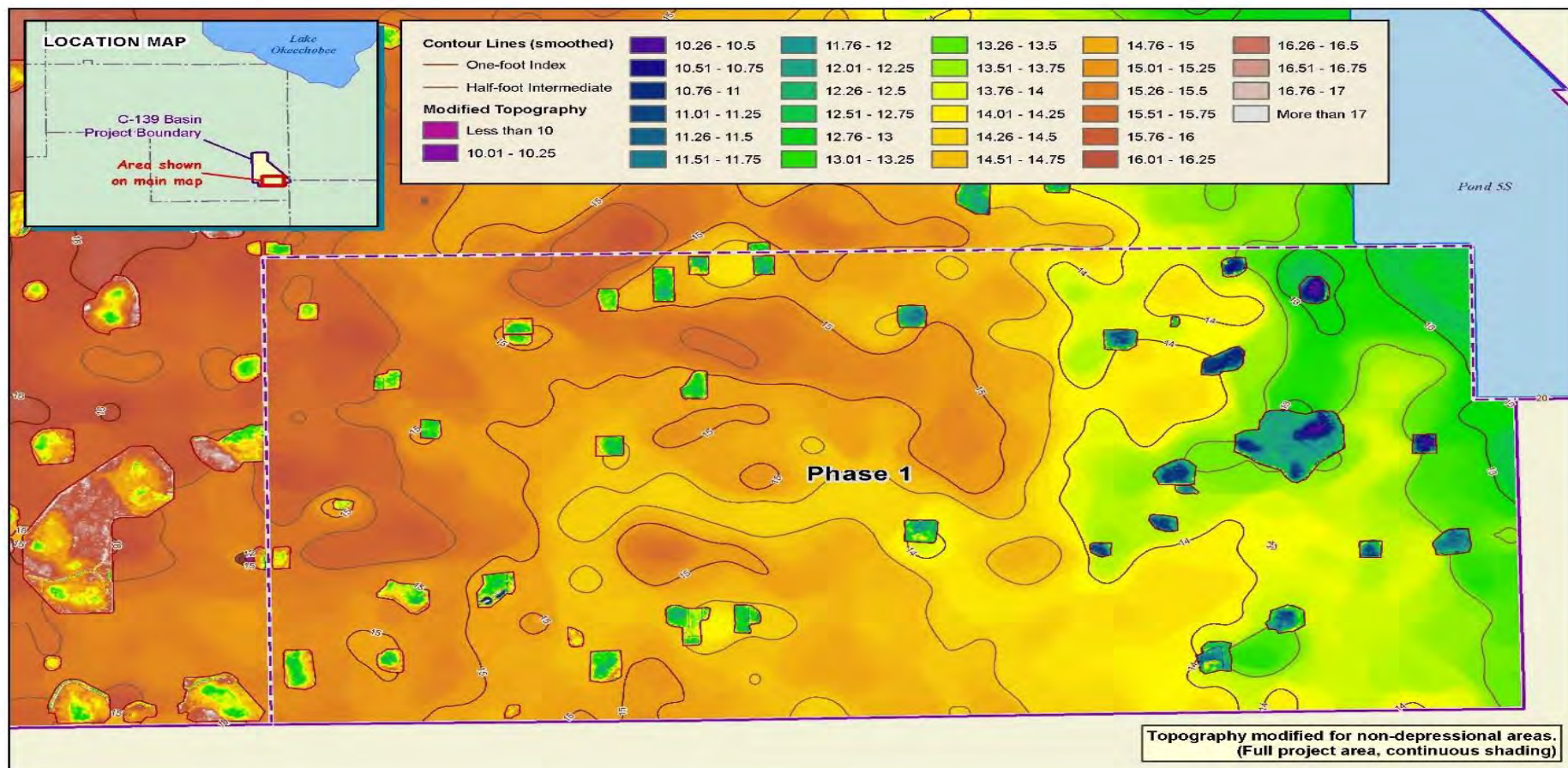
Remove Citrus Groves and Treat Exotics



Remove Drainage Pipes and Irrigation



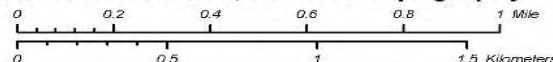
Post Leveling Projections: Wetland Surface Water Flow and Depressions



BASE CREDITS:
All elevations are in feet, relative to NAVD 1988.
State plane projection, Florida east zone, NAD 83-HARN, US feet.

South Florida Water Management District
3301 Gun Club Rd, West Palm Beach, FL 33406
561-686-9800 - FL WATS 1-800-432-2045
P.O. Box 24680 - West Palm Beach, FL 33416-4680

C-139 Annex Restoration, Phase 1 Topography



IMPORTANT DISCLAIMER:
This map is a conceptual or planning tool only. The South Florida Water Management District does not guarantee or make any representation regarding the information contained herein. It is not self-executing or binding, and does not affect the interests of any persons or properties, including any present or future right of use of real property.

September 2015



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User Name: tlieber

Remedy Ticket: 0013287

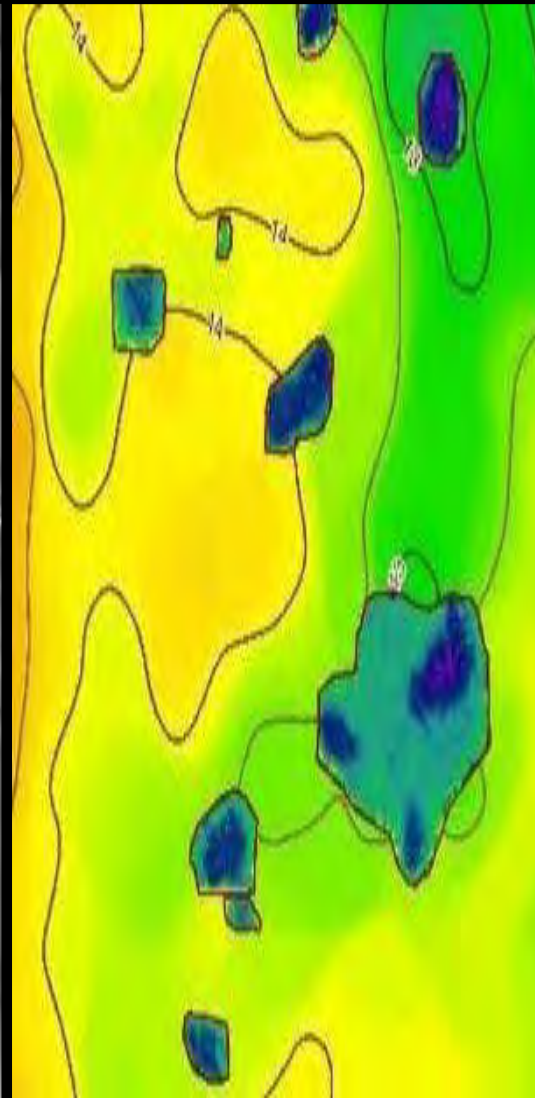
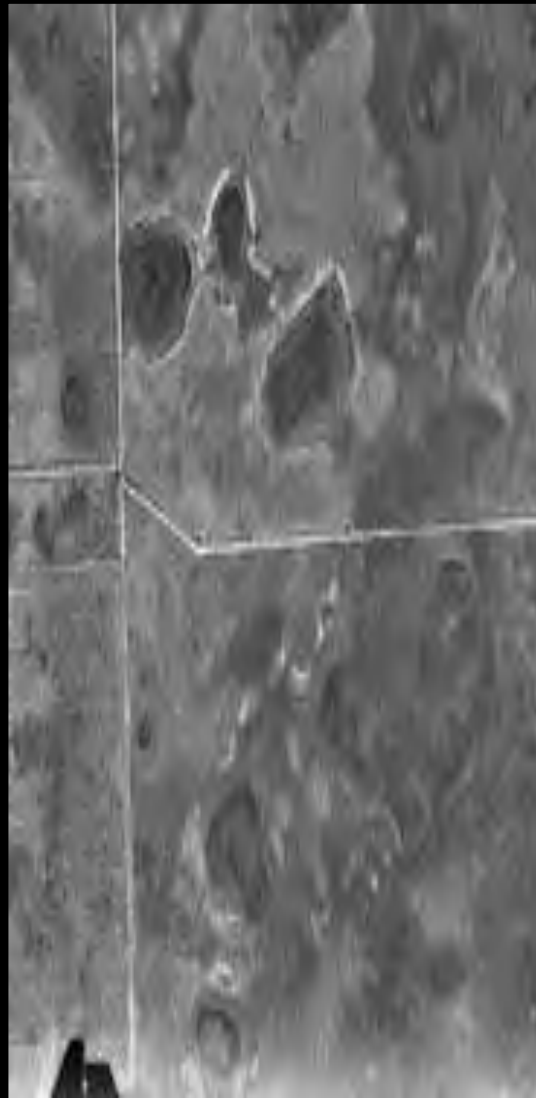
Map Produced on Date: 9/10/2015 11:13:18 AM

2017: Remnant Wetland Boundaries Expand and Historic Sloughs Reappear



June 2017: Looking west after significant rain event

Historic Aerial/Projected Topo/Recent Aerial





Phase 1: Wetland Revegetation

Natural Recruitment from Remnant Wetlands - Ongoing



2017 Maidencane Rhizome Planting: 6 Cells Planted (approximately 720 acres)



2016 Stem Planting Test Plot: Groundcover Establishing (20 acres)



2016 Direct Seeding Test Plot (3.5 acres)



2017-2018: Conventional Plantings



2017-2018: Non-Conventional Plantings



Encyclia tampensis
Photo and © by Roger Hammer
Wildflowers of the Everglades



Bletia purpurea
Photo and © by Roger Hammer
Wildflowers of the Everglades



Cyrtopodium punctatum
Photo by Keith Bradley

2017-2018: Trial Revegetation Techniques



2017-2018: Trial Revegetation Techniques



2017-2018: Trial Revegetation Techniques



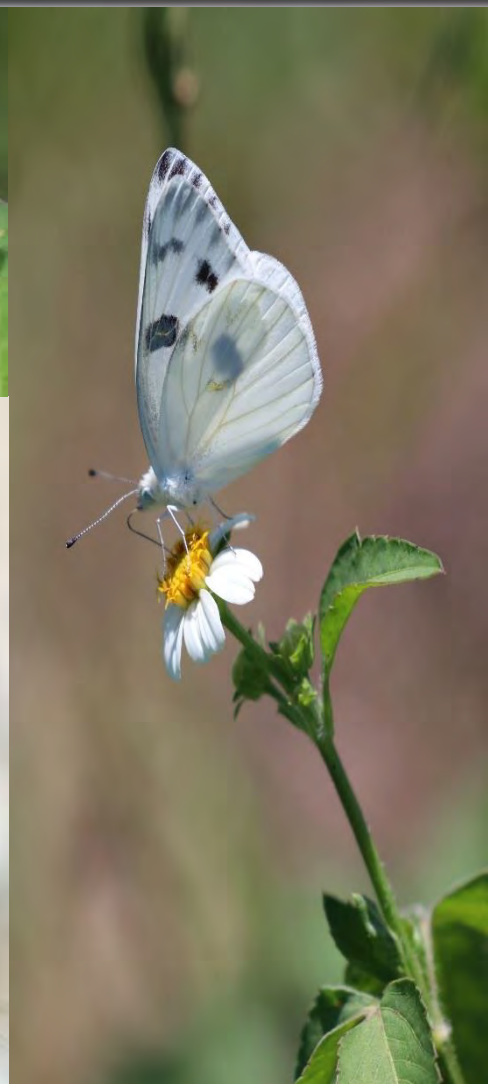
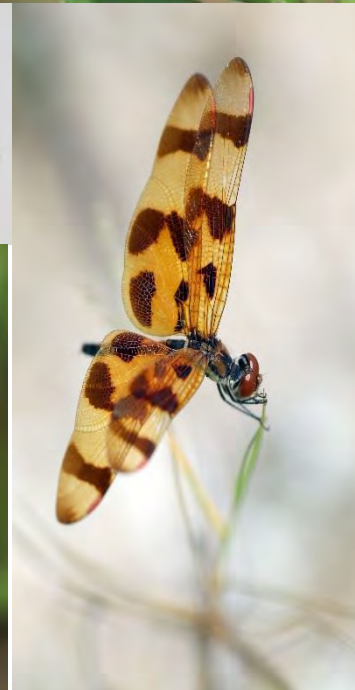
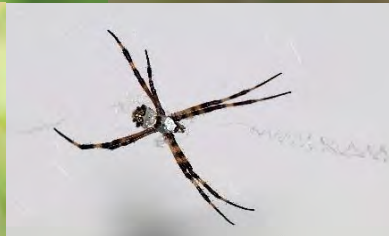
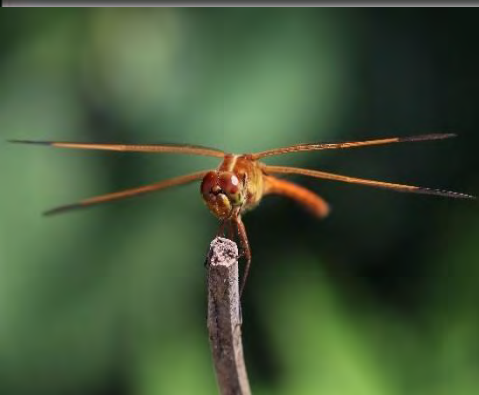


Phase 1: Wildlife Utilization

Wildlife Utilization: Animal Tracks



Wildlife Utilization: Miscellaneous Insects, etc.



Wildlife Utilization: Reptiles/Amphibians



Wildlife Utilization: Avian



Wildlife Utilization: Avian



Wildlife Utilization: Mammals



Wildlife Utilization: Mammals



7/14/2017 9:37 AM



Wildlife Utilization: Mammals



6/27/2017 7:35 AM






FUTURE CONSTRUCTION: PHASE 1

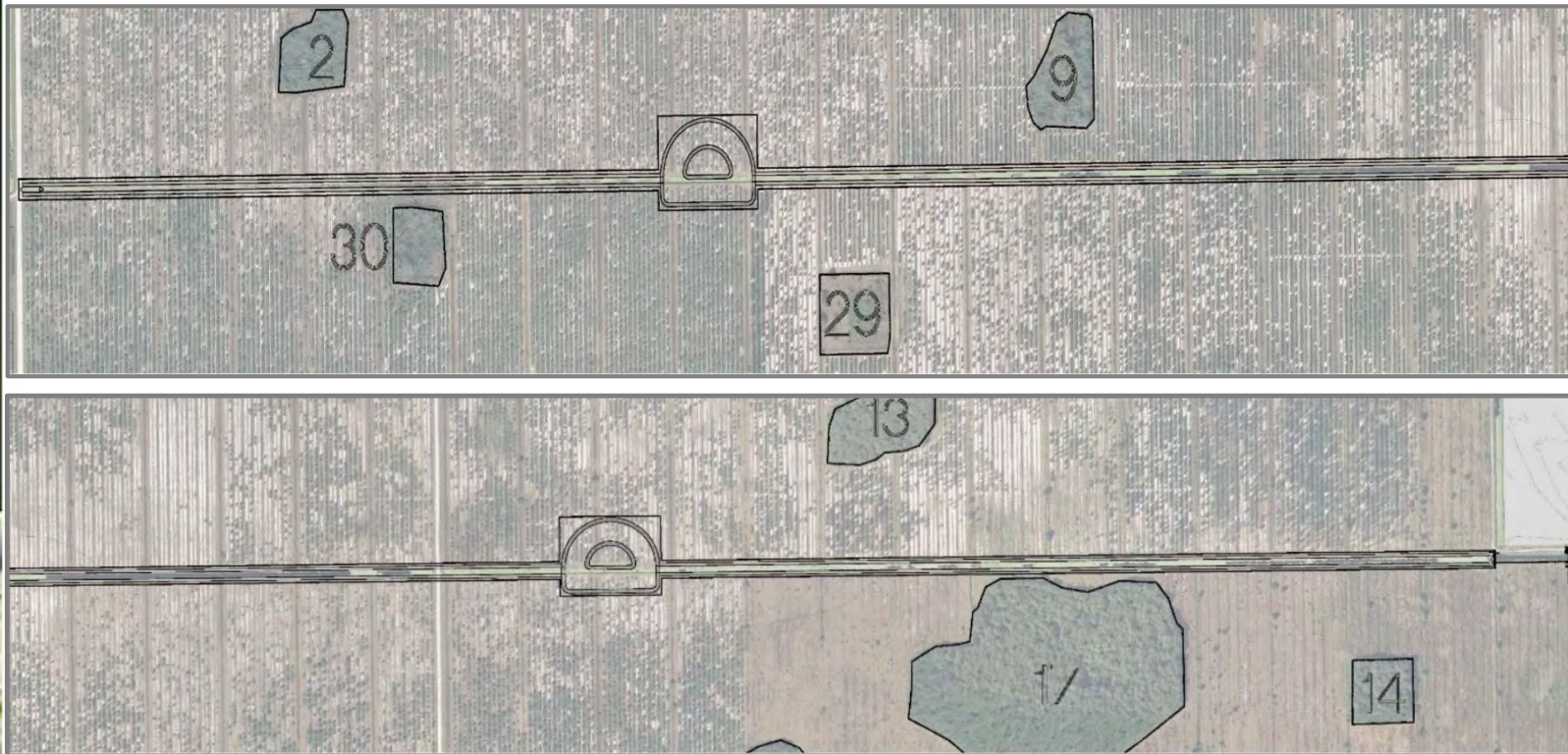
From Citrus Grove to Restored Wetlands



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1. Site within SFWMD Control
 2. Removal of citrus trees (clearing, pile, burn, smooth)
 3. Removal of citrus irrigation (tubing, wells, pumps, housing, piping, tanks)
 4. Mow vegetation in ditches prior to 1st exotic treatment
 5. 1st exotic treatment of cleared citrus grove areas
 6. Prescribed burn of cleared citrus grove areas
 7. 2nd – 8th exotic treatment sweep of cleared citrus grove
 8. Prior to site grading, verify exotic eradication success - additional time/treatments needed?
 9. Exotic treatment/removal in remnant wetland areas (mechanical and hand removal)
 10. Level grove blocks
Soil monitoring and stabilization
 11. Identify groundcover donor site
 12. Herbicide and fertilize groundcover donor site
 13. Identify groundcover areas available for harvest

- 
14. Identify max area of groundcover restoration planting; does the identified donor site produce enough material?
 15. 1st groundcover harvest
 16. 1st groundcover planting
 17. Rest period: groundcover donor site recovery and regrowth
 18. **Fill lateral canals and excavate deep refugia areas**
 19. Construct/retrofit perimeter site controls (roads, levees, berms, canals)
 20. Construct/retrofit water control structures
 21. Construct/retrofit internal roadway network
 22. Construct seepage pump
 23. Plant aquatic vegetation in wetlands as appropriate
 24. Collect seed for wetland diversity
 25. Direct seed for wetland diversity
 26. Monitoring for evidence of success – water, wildlife, vegetation
 27. Implement adaptive management
 28. Repeat

Lateral Canal 15E – To Be Fully Backfilled Starting Fall 2017



Phase 1 Proposed Construction Activities:

- Canal backfilling already authorized by SAJ-2014-0717
- Remove existing water control structures
- Excavate two deep water refugia areas to generate fill material
- Backfill Lateral Canal 15E to natural grade

Other Onsite Resources



Potential Structural Habitat?





Future Project Boundaries: Phase 2 - Updated

Revised: Project Boundaries in Phase 2

Phase 1 (Green)

= ~3290 ac

Phase 2 (Purple)

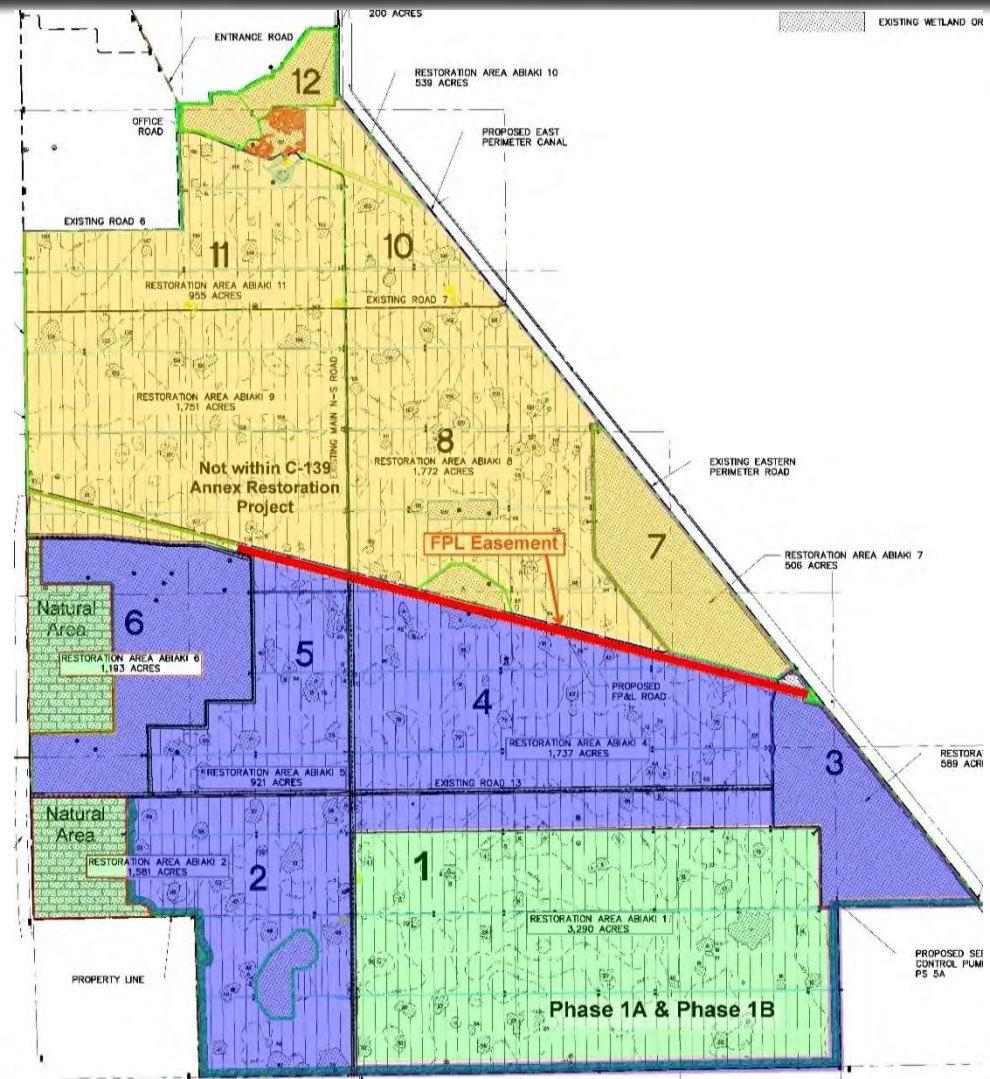
= ~6233 ac

Outside current
restoration (Yellow)

= ~5532 ac

Total Site Area

= ~ 15,055 ac



QUESTIONS ?

